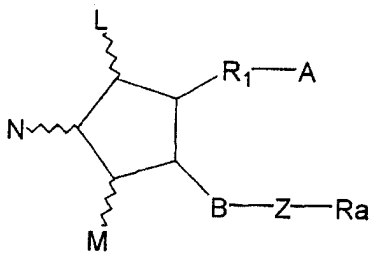
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for treating obesity in a mammalian subject, which comprises administering to a mammalian subject in need of reduction of body weight an effective amount of a prostaglandin compound as shown by the following formula (I):



(I)

wherein L, M and N are hydrogen atom, hydroxy, halogen atom, lower alkyl, hydroxy(lower)alkyl, lower alkanoyloxy or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have at least one double bond;

A is $-CH_3$, or $-CH_2OH$, $-COCH_2OH$, -COOH or a salt, ether, ester or amide thereof;

B is single bond, $-CH_2-CH_2-$, -CH=CH-, $-C\equiv C-$, $-CH_2-CH_2-CH_2-$, $-CH=CH-CH_2-$, $-CH_2-CH=CH-$, $-C\equiv C-CH_2-$ or $-CH_2-C\equiv C-$;

Z is C=O;

R_1 is a saturated or unsaturated bivalent lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with halogen, alkyl, hydroxy, oxo, aryl selected from the group consisting of phenyl, tolyl and xylyl which is unsubstituted or substituted or heterocyclic

group selected from the group consisting of furyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, furazanyl, pyranyl, pyridyl, pyridazinyl, pyrimidyl, pyrazinyl, 2-pyrrolinyl, pyrrolidinyl, 2-imidazolinyl, imidazolidinyl, 2-pyrazolinyl, pyrazolidinyl, piperidino, piperazinyl, morpholino, indolyl, benzothienyl, quinolyl, isoquinolyl, purinyl, quinazolinyl, carbazolyl, acridinyl, phenanthridinyl, benzimidazolyl, benzimidazolinyl, benzothiazolyl and phenothiazinyl which is unsubstituted or substituted, and at least one carbon atom in the aliphatic hydrocarbon is optionally substituted by oxygen, nitrogen or sulfur; and

Ra is a saturated or unsaturated lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with one or more substituents selected from the group consisting of halogen, oxo, hydroxy, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl, cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group and heterocyclic-oxy group; lower alkoxy; lower alkanoyloxy; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; or heterocyclic-oxy;

wherein said treating comprises care, relief, attenuation, or arrest of progression of obesity.

2. (canceled).

3. (withdrawn): The method as described in Claim 18, wherein said prostaglandin compound is a 16-mono or dihalogen-prostaglandin compound.

4. (withdrawn): The method as described in Claim 18, wherein said prostaglandin compound is a 13,14-dihydro-16-mono or dihalogen-prostaglandin compound.

5. (previously presented): The method as described in Claim 1, wherein said prostaglandin compound is a 13,14-dihydro-15-keto-l6-mono or dihalogen-prostaglandin compound.

6. (withdrawn): The method as described in Claim 18, wherein said prostaglandin compound is a 13,14-dihydro-16-mono or difluoro-prostaglandin compound.

7. (previously presented): The method as described in Claim 1, wherein said prostaglandin compound is a 13,14-dihydro-l5-keto-16-mono or difluoro-prostaglandin compound.

8. (withdrawn): The method as described in Claim 18, wherein said prostaglandin compound is a 13,14-dihydro-l6-mono or dihalogen-prostaglandin E compound.

9. (previously presented): The method as described in Claim 1, wherein said prostaglandin compound is a 13,14-dihydro-l5-keto-16-mono or dihalogen-prostaglandin E compound.

10. (withdrawn): The method as described in Claim 18, wherein said prostaglandin compound is a 13,14-dihydro-16,16-difluoro-prostaglandin E_1 compound.

11. (previously presented): The method as described in Claim 1, wherein said prostaglandin compound is a 13,14-dihydro-15-keto-16,16-difluoro-prostaglandin E_1 compound or 13,14-dihydro-15-keto-16,16-difluoro-18-methyl-prostaglandin E_1 compound.

12. (original): The method as described in Claim 1, which comprises systemic administration 1-4 times per day or continuous administration at the amount of 0.01-100 μg/kg per day.

13. (original): The method as described in Claim 12, wherein the administration is at the amount of 0.1-10 μg/kg per day.

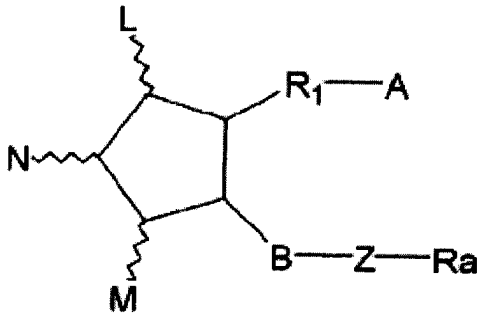
14. (canceled).

15. (canceled).

16. (canceled).

17. (canceled).

18. (withdrawn-currently amended): A method for treating obesity in a mammalian subject which comprises administering to a mammalian subject in need of reduction of body weight an effective amount of a prostaglandin compound as shown by the following ~~general~~ formula (I):



(I)

wherein L, M and N are hydrogen atom, hydroxy, halogen atom, lower alkyl, hydroxy(lower)alkyl, lower alkanoyloxy or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have at least one double bond;

A is $-CH_3$, or $-CH_2OH$, $-COCH_2OH$, -COOH or a functional derivative salt, ether, ester or amide thereof;

B is single bond, $-CH_2-CH_2-$, $-CH=CH-$, $-C\equiv C-$, $-CH_2-CH_2-CH_2-$, $-CH=CH-CH_2-$, $-CH_2-CH=CH-$, $-C\equiv C-CH_2-$ or $-CH_2-C\equiv C-$;

Z is

or single bond

wherein R_4 and R_5 are hydrogen, hydroxy, halogen, lower alkyl, lower alkoxy or hydroxy(lower)alkyl, wherein R_4 and R_5 are not hydroxy and lower alkoxy at the same time;

R_1 is a saturated or unsaturated bivalent lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with halogen, alkyl, hydroxy, oxo, aryl selected from the group consisting of phenyl, tolyl and xylyl which is unsubstituted or substituted or heterocyclic group selected from the group consisting of furyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, furazanyl, pyranyl, pyridyl, pyridazinyl, pyrimidyl, pyrazolyl, 2-pyrrolinyl, pyrrolidinyl, 2-imidazolinyl, imidazolidinyl, 2-pyrazolinyl, pyrazolidinyl, piperidino, piperazinyl, morpholino, indolyl, benzothienyl, quinolyl, isoquinolyl, purinyl, quinazolinyl, carbazolyl, acridinyl, phenanthridinyl, benzimidazolyl, benzimidazolinyl, benzothiazolyl and phenothiazinyl which is unsubstituted or substituted, and at least one of carbon atom in the aliphatic hydrocarbon is optionally substituted by oxygen, nitrogen or sulfur; and

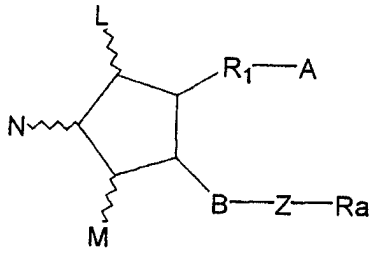
Ra is a saturated or unsaturated lower or medium aliphatic hydrocarbon residue which is unsubstituted or substituted with and may have a further substituent selected from the group consisting of oxo, hydroxy, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl,

cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group and hetrocyclic-oxy group; lower alkoxy; lower alkanoyloxy; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; heterocyclic-oxy;

wherein said treating comprises care, relief, attenuation, or arrest of progression of obesity.

19. (previously presented): The method as described in Claim 1, wherein said prostaglandin compound is a 15-keto-16-mono or di-halogen prostaglandin compound.

20. (currently amended): The method as described in Claim 1, wherein comprises administering to a mammalian subject in need of treatment for obesity an effective amount of a prostaglandin compound as shown by the following ~~general~~ formula (I) to reduce body weight:



(I)

wherein L, M and N are hydrogen atom, hydroxy, halogen atom, lower alkyl, hydroxy(lower)alkyl, lower alkanoyloxy or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have at least one double bond;

A is $-CH_3$, or $-CH_2OH$, $-COCH_2OH$, -COOH or a salt, ether, ester or amide thereof;

B is single bond, $-CH_2-CH_2-$, -CH=CH-, $-C\equiv C-$, $-CH_2-CH_2-CH_2-$, $-CH=CH-CH_2-$, $-CH_2-CH=CH-$, $-C\equiv C-CH_2-$ or $-CH_2-C\equiv C-$;

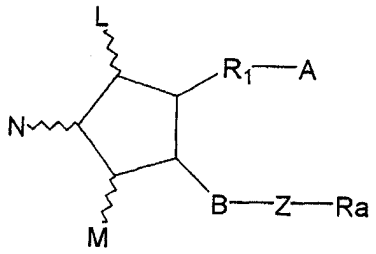
Z is C=O;

R_1 is a saturated or unsaturated bivalent lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with halogen, alkyl, hydroxy, oxo, aryl selected from the group consisting of phenyl, tolyl and xylyl which is unsubstituted or substituted or heterocyclic group selected from the group consisting of furyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, furazanyl, pyranyl, pyridyl, pyridazinyl, pyrimidyl, pyrazinyl, 2-pyrrolinyl, pyrrolidinyl, 2-imidazolinyl, imidazolidinyl, 2-pyrazolinyl, pyrazolidinyl, piperidino, piperazinyl, morpholino, indolyl, benzothienyl, quinolyl, isoquinolyl, purinyl, quinazolinyl, carbazolyl, acridinyl, phenanthridinyl, benzimidazolyl, benzimidazolinyl, benzothiazolyl and phenothiazinyl which is unsubstituted or substituted, and at least one carbon atom in the aliphatic hydrocarbon is optionally substituted by oxygen, nitrogen or sulfur; and

Ra is a saturated or unsaturated lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with one or more substituents selected from the group consisting of halogen, oxo, hydroxy, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl, cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group and heterocyclic-oxy group; lower alkoxy; lower alkanoyloxy; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; or heterocyclic-oxy;

wherein said treating comprises care, relief, attenuation, or arrest of progression of obesity.

21. (currently amended): A method for reducing body weight in a mammalian subject which comprises administering to a mammalian subject in need of treatment for obesity an effective amount of a prostaglandin compound as shown by the following ~~general~~ formula (I) to reduce body weight:



(I)

wherein L, M and N are hydrogen atom, hydroxy, halogen atom, lower alkyl, hydroxy(lower)alkyl, lower alkanoyloxy or oxo, wherein at least one of L and M is a group other than hydrogen, and the five-membered ring may have at least one double bond;

A is $-CH_3$, or $-CH_2OH$, $-COCH_2OH$, -COOH or a salt, ether, ester or amide thereof;

B is single bond, $-CH_2-CH_2-$, -CH=CH-, $-C\equiv C-$, $-CH_2-CH_2-CH_2-$, $-CH=CH-CH_2-$, $-CH_2-CH=CH-$, $-C\equiv C-CH_2-$ or $-CH_2-C\equiv C-$;

Z is C=O;

R_1 is a saturated or unsaturated bivalent lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with halogen, alkyl, hydroxy, oxo, aryl selected from the group consisting of phenyl, tolyl and xylyl which is unsubstituted or substituted or heterocyclic group selected from the group consisting of furyl, thienyl, pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, furazanyl, pyranyl, pyridyl, pyridazinyl, pyrimidyl, pyrazinyl, 2-pyrrolinyl, pyrrolidinyl, 2-imidazolinyl, imidazolidinyl, 2-pyrazolinyl, pyrazolidinyl, piperidino, piperazinyl, morpholino, indolyl, benzothienyl, quinolyl, isoquinolyl, purinyl, quinazolinyl, carbazolyl, acridinyl, phenanthridinyl, benzimidazolyl, benzimidazolinyl, benzothiazolyl and phenothiazinyl which is unsubstituted or substituted, and at least one carbon atom in the aliphatic hydrocarbon is optionally substituted by oxygen, nitrogen or sulfur; and

Ra is a saturated or unsaturated lower or medium aliphatic hydrocarbon residue, which is unsubstituted or substituted with one or more substituents selected from the group consisting of halogen, oxo, hydroxy, lower alkoxy, lower alkanoyloxy, cyclo(lower)alkyl, cyclo(lower)alkyloxy, aryl, aryloxy, heterocyclic group and heterocyclic-oxy group; lower alkoxy; lower alkanoyloxy; cyclo(lower)alkyl; cyclo(lower)alkyloxy; aryl; aryloxy; heterocyclic group; or heterocyclic-oxy;

wherein said treating comprises care, relief, attenuation, or arrest of progression of obesity.

22. (new): The method as described in Claim 1, wherein said prostaglandin compound is a 15-keto-16-mono or dihalogen-prostaglandin compound.

23. (new): The method as described in Claim 1, wherein said prostaglandin compound is a 15-keto-16-mono or dihalogen-prostaglandin El compound.

24. (new): The method as described in Claim 1, wherein said prostaglandin compound is a 13,14-dihydro-15-keto-16-mono or dihalogen-prostaglandin El compound.

25. (new): A method for treating obesity in a mammalian subject, which comprises administering to a mammalian subject in need of treatment for obesity an effective amount of 13,14-dihydro-l5-keto-16,16-difluoro PGE1, wherein said treating comprises care, relief, attenuation, or arrest of progression of obesity.